DOCUMENT RESUME

ED 444 299 EC 307 989

AUTHOR Reale, Robin
TITLE Program Design for a Community-Based Literacy Program for Adults with Mental Retardation.
PUB DATE 1999-00-00
NOTE 15p.; Paper presented at the Annual Meeting of the American Association on Mental Retardation (New Orleans, LA, May 24-28, 1999).
PUB TYPE Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Adult Basic Education; *Adult Literacy; *Adult Reading Programs; Functional Literacy; Instructional Effectiveness; *Literacy Education; *Mental Retardation; Student Evaluation; *Teaching Methods; Test Validity
IDENTIFIERS *Massachusetts (Boston)

ABSTRACT

This brief paper describes a literacy program for adults with mental retardation in the Boston metropolitan region developed when more than 300 individuals formally requested literacy services. Several cognitive and literacy assessments were reviewed and implemented. No one assessment was found to be sufficient to assess ranges from pre-literacy to high school. The Brigance and Diagnostic Assessment of Reading (DAR) were found to be the most helpful in determining literacy level, learning style, and type of instruction. The most successful instructional approach included a combination of phonics and whole language. The single most significant variable in reading success was learning across settings more than once a week. Learners who received literacy help at home or at work in addition to classroom group instruction showed the most improvement in word meaning. Program participants gained from .5 to 2.5 grade levels in one year of instruction. It was concluded that adults with mental retardation have the greatest reading success when they follow the same steps in reading development as adults in community-based adult education programs. (Contains 20 references.) (DB)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 444 299

Title: Program Design for a Community-Based Literacy Program for Adults with Mental Retardation.

Presenter: Robin Reale, M.A.

Work (781) 894-3600 x. 4062
e-mail: robin.reale@state.ma.us
Adult Basic Education Coordinator
Department of Mental Retardation, Massachusetts

Secretary, Board of Directors, Massachusetts Chapter, AAMR
Member, Massachusetts Family Literacy Consortium
Member, Boston Area Returned Peace Corps Volunteers
Recipient of the Governor's 1999 Eugene Rooney Award for Innovation in Public Service
Recipient of the ARC of Northern Essex County's 2000 Humanitarian Award for Helping Individuals with Developmental Disabilities

Summary:
Over three hundred adults with mental retardation have formally requested literacy services from the Department of Mental Retardation. No literacy program for adults had been in place since the Adult Education Department of the DMR had been disbanded in 1993 when adults with mental retardation were placed into vocational workshops. Several cognitive and literacy assessments were reviewed and implemented. No one assessment was found to be sufficient to assess ranges from pre-literacy to pre-GED. The Brigance and DAR were found to be the most helpful in determining literacy level, learning style, and type of instruction. The most successful instructional approach included a combination of phonics and whole language. The single most significant variable in reading success was learning across settings more than once a week. Learners who received literacy help at home or at work in addition to classroom group instruction showed the most improvement in word meaning. With these variables in place, adults with mental retardation gained GE .5 to GE 2.5 in one year. Adults with mental retardation have the greatest reading success when they follow the same steps in reading development (Chall 1983) as adults in community-based adult education programs.

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
Reale
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

EC 307989

BEST COPY AVAILABLE

Program Design for a Community-Based Literacy Program for Adults with Mental Retardation. Robin Reale, M.A. ,

Introduction.

Program History. In 1993 adults with mental retardation requested reading and writing services of the Service Coordinators and Clinical Directors in the Metro Boston Region of the Department of Mental Retardation (DMR) to help them get better jobs. The department had no adult education services in place. These adults had either been denied services by community programs because of lack of staff who had knowledge of teaching reading to people with learning disabilities, long waiting lists, or the cost of program exceeded ability of a person to pay. The DMR staff contacted the ABE Coordinator of this paper who is the Adult Basic Education (ABE) Coordinator for the DMR Metro Region Literacy Program.

Some of the adults with mental retardation who had been successful in gaining entry into a community program were looking for a support system from the DMR in Massachusetts to fill in the educational gaps impeding continued success in community classrooms. Some students had reading gaps which needed to be addressed systematically for reading for meaning and reading for new information to occur (Chall 1983). A few learners self-reported they had been asked to leave community programs because of behavioral issues.

In 1993 the Adult Basic Education Coordinator for the DMR was the Metro Region trainer teaching literacy, ESOL, and GED to staff in the workplace. This ABE Coordinator wrote a note to the last Director of the Adult Education Department at the Fernald State School. The Fernald State School had been the largest institution in the Western Hemisphere for people with mental retardation. The ABE Coordinator asked if the Adult Education Department conducted reading, math, and science assessments for those who lived at the Fernald School. Many of the adults with mental retardation were working in vocational workshops at the Fernald School. The response (May 21, 1993) from Darrel Cole, the last director was:

> "There is no more Adult Education Department. There still exist some assessment tools which will test reading and math skills, i.e. the *Brigance*, but there is no one to do it. I can supply you with assessment materials if you like."

In the search for materials, the ABE Coordinator was told there were some books in the basement of an old building. None were located. Later, the former Adult Education Director located some assessment tools in a cottage closely guarded by a staff person who was still writing objectives for an adult still living in the institution, i.e., Tom will read 20 new words with 90% accuracy with one verbal cue per word in 75% trials this quarter. The staff person lent the ABE Coordinator some old assessments, but needed them returned promptly.

In recent meetings with the Lawrence Adult Learning Center Director and Volunteer Tutor Coordinator, they reported the reading level of grade equivalent three, from administration of the ABLE, was the cut-off point for group instruction in their

program. Although there are many adults with mental retardation who read at that level, most in our program read at grade equivalents below that. At the Lawrence Center there was no specific tutor training to enable volunteer literacy or English for Speakers of Other Languages (ESOL) tutors to prepare them to tutor anyone with a learning disability. Although some staff knew of the Department of Education's Young Adult with Learning Disability (YALD), Training and Training for Trainers, this information had not been incorporated into the tutor training. There was discussion about the definitions of mental retardation and learning disability.

In spite of varying viewpoints on the value of testing, there seems to be general agreement that assessment that helps teachers design instruction is indeed valuable (Moses 1990). Some teachers look toward a straight literacy assessment instead of cognitive, neurological, or psychological reports.

This ABE Coordinator had two old tools: *The Harris Graded Word List* (pre-primer word list to grade equivalent eight reading comprehension) and the *SRA Reading Index*. The *Harris* test had vocabulary and content outside the realm of the first students tested. The *SRA* began with picture word association. The pictures were not of high quality. The jump between the pictures and the word decoding was too far to include all the reading steps in between. Neither test included writing. These tests do not provide clues about any learning disability the adult learner might have. Neither provided for any instructional framework.

This ABE Coordinator decided to return to the *Brigance* and wrote a grant to the Metropolitan Residential Services of the Department of Mental Retardation in Massachusetts. MRS awarded the funding to purchase the *Brigance*. The *Brigance* provides the tools to test several pre-literacy skills and cognitive skills as visual discrimination, visual-motor, visual memory (Brigance 1977). This graphic summary provides an immediate reference tool for diagnosis and planning purposes. It was found that whatever information learned from the *Brigance*, adults with various learning disabilities all must follow all the stages outlined in Chall's Stages of Reading Development (1983).

The Brigance and other assessments as Seven Kinds of Smart (Armstrong 1993) helped not change what was taught in the program, or the order, but helped find creative and learner-specific methods of teaching.

Instead of focusing (Chall 1994) assessment on indirect causes or labels, whether neurological, psychological, or educational, the testing and teaching procedures recommended here are direct; they focus on the reading and related language abilities of the students, disentangle them, and suggest what can be done to improve them. This ABE Coordinator has assessed students with the DAR (Diagnostic Assessments of Reading, Chall). In assessment of some of the learners for whom referrals have been received, the DAR falls short of the program's needs. If a student has no literacy skills,

the DAR does not allow assessment of pre-literacy skills, i.e., left to right, top to bottom, color and shape discrimination.

Although Chall does not see specific diagnosis of a learning disability necessary for teaching, in some specific cases, the knowledge gleaned from a psychological or neurological report have been helpful in developing teaching strategies.

The successful composition of a literacy class could balance in part on information from psychological profiles. In a few cases this ABE Coordinator has been able to notify someone on the DMR team that a student's violent behavior in class may be a reaction to new medication or the abrupt withdrawal from it. One student had some funding reduced. The first thing she stopped buying was her anti-psychotic medication. This ABE Coordinator seemed to have been the first person within the DMR system to have observed a change in behavior. The Service Coordinator found funding. After, the ABE Coordinator met with the learner's psychiatrist and the learner several times to help reintegrate the learner back into the classroom.

A learner with Attention Deficit Disorder, which could be information stated in a psychological profile, may need special considerations, i.e., more break time, the choice to walk around the classroom, or more bodily- kinesthetic activities (Armstrong, 1993). Although I have read neurological reports sighting a very specific issue I continue to teach and achieve success teaching reading by following prescriptive teaching steps found in (Chall 1994).

In order to help learners maintain their already acquired skills and build upon new skills we need to change the premature cognitive commitments (Langer 1989) of the adults with mental retardation, their families, their communities, the staff who work with them and those who create literacy materials. In the "Exclusion Factors" for her program,(Wilson 1991), #4 Adults with a low average I.Q. can benefit from multisensory language instruction. The Wilson Reading System, however, will not benefit a person with mental retardation present. The Result section will further discuss the success adults with mental retardation have achieved with the *Wilson System*. By creating mindful behavior (Langer 1989) we can begin to reverse learned helplessness, create new categories, become open to new information, and avoid stunting potential.

The goals of this program are to meet the needs of the educational services requested by adults with mental retardation through the clinical referral process. The program also has the goal of inclusion of adults with mental retardation into the community. Literacy is often seen as the last barrier into community inclusion.

Method

Participant Selection.

One hundred seventy-seven adults with mental retardation (as located in 115 CMR 02.00: Definitions of the Department of Mental Retardation, Massachusetts) have been

referred for Adult Basic Education services. The adults or their guardians have requested reading, writing, GED, citizenship, ESOL, and computer classes. The adults live in the Metro Region of Massachusetts and are all served by the Department of Mental Retardation. Everyone has met the criteria set forth by the DMR guidelines.

The adults live with their parents, spouses and children, in state operated homes (Metropolitan Residential Services), in a state operated center, or by themselves. 43% of the learners live in a provider agency group home, 29% live with their families, 13% live independently or with spouse and children, 11% live in state operated homes, and 4% live in a state facility. The ages of the learners in the program range from 22 - 70 with the mode falling in the 22 - 29 age grouping.

The level of previous education varies. 46% graduated from a special education program, 28 % grew up in a state run institution, 15% dropped out of special education, 11% had no previous education.

The lowest literacy level of learners assessed, had no literacy skills. The highest level was grade equivalent 7. The mode was at the primer level. The IQ at the lowest end was 25-29. The highest range was 75-79. The mode being 65-69, while the mean was 56. The ABE Coordinator did not conduct the IQ testing. Different psychologists using different tests reported these scores. The ages of the learner at the time of these tests were not provided.

All participants reach the literacy services by requesting services through an assigned Service Coordinator. The Service Coordinator e-mails a clinical referral form to the Adult Basic Education Coordinator and to the Director of Community Systems for the region. Although not initially part of the referral process, the ABE Coordinator requests the psychological profile of the learner in addition to the referral.

The largest determining factor of participant selection for each class is the reading level. Although reading level determines specific classroom assignment, the learner's ability to independently assimilate into the culture of the classroom is important. No one has been excluded from a program because of past behavioral issues or psychological issues. A few learners have been suspended from the program for assaultive behavior within the classroom until there had been no observable evidence of this behavior.

Many of the learners in this program are dual-diagnosis.The ABE Coordinator would like to think that violent assaults on the ABE Coordinator of this paper and other learners in class could have been prevented in some instances had psychological information been routinely requested. It appears some Service Coordinators withhold information from the ABE Coordinator in fear the learner will not be integrated into a literacy classroom e.g., when the ABE Coordinator requested a psychological profile after having received a referral for an assessment, she was told there were no psychological issues. At the assessment, the ABE Coordinator was notified by staff

present that the adult had committed sexual assault on a woman and then stabbed himself four months prior. Because this individual had remained hospitalized for an extended period of time and had subsequently declined literacy services, no decision had to be made about which classroom or tutor to assign him.

Parents and guardians of female adults with mental retardation who have been living at home, frequently express great concern about the male-female integration in a classroom. The DMR Literacy Program does not seek to segregate classrooms. Students are placed in classroom according to similar reading levels.

Knowing someone has paranoid tendencies has taught the ABE Coordinator not to cast this person in the role of a defendant in a classroom court scene role-play. One could note that in a community education class, a literacy teacher would not have this intimate knowledge. The clinical referral system which sends students for assessment, sets one up to accept responsibility for students' safety. The contrary to that argument would be that the classes are trying to mirror "normalization" and community integration practices as much as possible and that a teacher is not responsible for the behavior of her students. The bottom line is setting up the environment for success.

Setting.

Assessment: The Adult Literacy Program conducts assessments in the adult's home, workplace, local library, or in the Regional Training Department.

Literacy Classes: Tutorials are conducted in all the above locations in addition to a provider agency's space set aside as a classroom.

Group classrooms: are held in two different DMR Area Offices, two classes including the computer lab are held at the Fernald Center, four classes are held in provider agency workshops and day programs. The classes are held in the morning afternoon and evening to accommodate a variety of work schedules of the learners. The pre-literacy classes are one hour, the others are two hours. Each class is taught once a week.

In addition to the classes composed of only adults with mental retardation, a few students attend community adult basic education classes at local high schools. Some adults only attend mainstream community adult education classes.

Although it has not been a requisite, many of the adults in the DMR classes also receive educational assistance at home. Staff, family members, and friends are encouraged to work 1:1 with the learners at home or at work on literacy skills.

Procedure

Design. Upon request of literacy services by an adult with mental retardation, a DMR Service Coordinator completes a clinical referral form requesting a cognitive and

literacy assessment to determine enrollment in class. The form is sent via e-mail to the Community Systems Director and the Adult Basic Education (ABE) Coordinator for the Metro Region of the DMR.

The assessment is conducted by the ABE Coordinator. Prior to assessment the ABE Coordinator requests any psychological or neurological reports available. The learner is offered a literacy or computer-literacy course, assigned to a tutor, enrolled in a community literacy program, or placed on a waiting list.

Agencies which provide services for the DMR also refer people for assessment. Service provider agencies ask for the intervention of the DMR to assess potential learners, train staff, set up a literacy program, and provide a support system. Post assessment, learners in these programs attend literacy classes staffed by providers. Many providers have added a literacy component to day programs or sheltered workshops.

A large part of implementing a large scale literacy program is coalition building. The Adult Basic Education Coordinator attended Department of Mental Retardation Area Office meetings to discuss the program. The Coordinator has also given workshops at provider agency day programs and sheltered workshops. Variables such as transportation, responsibility, payment and ordering of textbooks, scheduling, and staff ratios were discussed. Rather than allowing administrative, financial, logistical, and other factors to prevent development of a community-based model, it would seem, it would seem more beneficial to seek solutions to such problems (Hamre-Nietupski, Nietupski, Bates, Maurer 1982). In addition, the Adult Basic Education Coordinator for the DMR and the Massachusetts Family Literacy Consortium Coordinator and Training Committee will be co-presenting workshops to each Regional Meeting of the DMR to Clinical Directors, Service Coordinator Supervisors, and Family Support Providers. The goal is to make people aware of family literacy programs including early intervention which welcome families with a member who has mental retardation.

Assessment Tools. Initially the *SRA* and *Harris Word* tests were used. As they were found to be insufficient tools, the Brigance was purchased. The *Brigance* is still the most widely used assessment tool because of its pre-literacy assessment. The *DAR* specifically tests skills in the order in which an adult needs to learn to read. The program would use it more widely if there were funding. The *Rosner-TASS* is a quick phonics assessment in the sequential order learned. Recently the *Seven Kinds of Smart* has been used.

Skills Assessed. Phonemic awareness, silent and oral reading comprehension, spelling, word recognition, word meaning, attention to task, auditory memory, visual memory, written expression, classification, numeral recognition, number comprehension, oral and written personal data response, body image, color identification, visual-motor skills. Only recently have we asked learners to report on musical, spatial, linguistic, interpersonal, intrapersonal, bodily-kinesthetic, and logical mathematical intelligence.

Classroom Texts. The search for suitable text is on-going. The ideal textbook would have adult themes, large print, sequenced in graduated levels from easy to difficult in terms of phonics instruction and word meaning. News articles of high interest rewritten to learner's reading level (Raygor Readability Estimate) were used initially. *Sam and Val*, an adult basal reader with a phonics and whole language approach was used subsequently. Each chapter in this real-life adult book is followed by comprehension questions. There are several activities accompanying each lesson. *Reading for Today*, books two and three were used with learners who had community experience. The stories required knowledge of a community. The lessons included silent and oral reading comprehension with phonics lessons for every unit. *The Wilson Language Training Series*, a phonics based, twelve-step reading and writing program. The Wilson Program has a textbook and workbook for each level. The teacher needs to write her own comprehension questions. This system is helpful to teachers and tutors who have previously been unfamiliar with phonics. *Jazz Chants* is a collection of grammar and vocabulary based lessons through song and rhyme. *Picture Stories: Language and Literacy Activities for* Beginners is a great collection of pictures sequencing activities of daily living for adults. Pre-literacy learners to grade equivalent 5 learners find this book engaging. Our *Lives According to Us* is a text written during the 1998 spring term by the adults in the DMR Metro Region Literacy Program.

Instructional Approaches. Initially, the literacy classes only used the whole language approach, specifically language experience. After little success with this narrow approach, the phonics approach was adopted. Currently, the literacy classes are taught using a combination of both phonics and whole language instruction. We see that evidence supports (Adams 1994) a whole language and integrated arts approach with direct instruction in phonics. Reading is a means, not an end. Often language experience lends itself naturally to a phonics lesson. Through the spring 1998 semester, learners worked on chapters about themselves through a series of guided questions for each chapter. The students have given permission to print their stories together to form a textbook. A combination of listening to others read, silent and oral reading, phonics instruction, whole language instruction, and writing are components of every class. Students are given homework.

The ABE Coordinator who also teaches the literacy classes and conducts all the assessments, informally requests staff, family members, partners, and roommates to assist learners at home and across settings. The level of literacy instructional assistance is varied. The intensity of each intervention has not been measured. Learners and those in their lives report the following literacy interventions discussed by type: a reminder to do homework, help with problematic homework only, help with all homework, setting up a classroom situation with a board, reading to and with learner of non-classroom work, reading across settings, i.e. items in the grocery store or traffic signs and billboards. Some learners independently participated in community adult education programs. The frequency level ranged from one hour once a week to every day.

Criteria. Literacy level. Although several aspects of literacy and cognitive functioning are assessed, the literacy level is determined by the word recognition and then oral and silent reading comprehension. I would like to have a more vocabulary based criteria, as in the DAR, but don't have this system in place.

Pre-literacy class instructs those who (Chall 1983) pretend to read, retell story when looking at pages of book previously read, print own name, recognize some sight words. Primer level is for those who have some concept of the relationship between letters and sounds. The learner is able to recite the alphabet from memory and write it. The learner can write from left to write and top to bottom. Reading simple text containing high-frequency words and phonemically regular words is worked on. The learner uses skill and insight to decode new one-syllable words. Grade Equivalent One - learners continue to work on decoding. Learner develops more advanced language patters and ideas. Grade Equivalent Two learners read simple, familiar stories and selection with increasing fluency. This is done by consolidating the basic decoding elements, sight vocabulary, and meaning in context in the reading of familiar stories. Learners in the computer-literacy class need to read and write at a grade equivalent three.

Tutor Training. The Adult Basic Education Coordinator teaches a 15-hour tutor training.The training incorporates information on the instruction in literacy and/or ESOL, and learning disabilities. Teachers are encouraged to attend teacher meetings and additional phonics workshops. A field trip to the Adult Literacy Resource Institute (ALRI) is planned for each group of tutors. The ALRI has one of the most comprehensive literacy and ESOL libraries available for teachers in Massachusetts. The literacy and ESOL trainings were initially developed by the Massachusetts Department of Education. The Department of Education also offered a training and subsequent training for trainers in teaching readers with learning disabilities. The Adult Basic Education Coordinator of the DMR Literacy Program completed all these training for trainer courses. Currently the ABE Coordinator provides supports for 20 volunteer tutors.

The tutors are recruited from the local newspapers and the DMR Metro Region Training Calendar. The requirements are at least a high school diploma and a CORI check (an investigation by the police to assure DMR the potential tutor has not committed assault of any kind or any other major offense which could harm the learner.) Most of the tutors are sent by provider agencies who serve adults with mental retardation. The tutors are employees who are expected to return to their agency and tutor 1:1, or conduct group literacy classes. Some learners require literacy only, others ESOL/literacy. The tutors are all over 21 years of age. The numbers of men and women are almost equal. Most have at least a four-year college education.

The training and materials are free. The training is very interactive, allowing for a great deal of team and group lesson planning and teaching. Both phonics and whole language approaches are explained and demonstrated (NFLC 1993).When available, each tutor is sent back with a copy of the *Literacy Kit* which contains quick assessments in three

languages, ESOL/literacy tips, and several types of reading, writing, and conversational lessons.

Results

Performance Sessions. Pre-literacy learners receive one-hour of literacy instruction once weekly. All learners above that, receive two hours, incorporated into one session, weekly. Some learners receive literacy instruction in addition to the Department of Mental Retardation Literacy Program.

In the first year of teaching, using only text-based material, and where there were no supports outside of the literacy class, no measurable grade equivalent gains were made for any learner. Tutors who reported only using text and no phonics also made no measurable gain. No one has taught literacy in this program using only phonics and no text.

Last year was the first year the program combined a formal, sequenced, phonics program in addition to the whole language approach. Students with literacy interventions in addition to group literacy class made more gains (measured in Grade Equivalent) than those without ancillary help.The increases were at least .5GE up to 2.5 GE in word recognition in one school year. Students in the same classrooms without outside literacy help made gains less than .5GE in reading.

Students in the pre-literacy class did not make gains by grade equivalent, but in the following areas: reading their names to decoding other words, from reciting the alphabet to tracing and copying it, from tracing shapes to tracing the alphabet, attention to task. In the pre-test, 2 out of 7 learners could print his first name independently. In the post-test, all 7 learners could trace and copy their first and last names independently. In the pre-test 2 out of 7 could copy the alphabet independently. Post-test, 7 out of 7 could trace the alphabet, while 6 out of 7 could copy it. Pre-test, 6 out of 7 learners could maintain attention to task for one hour. One out of 7 could only maintain attention to task for 15 minutes. Post-test 7 out of 7 learners could maintain attention to task for one hour.

Learners and job coaches reported the learners had received job promotions as a direct result of literacy instruction. No data has been taken on this.

Discussion.

The establishment of a community-based literacy program for adults with mental retardation must embrace all the factors of a program to teach adults not identified as having mental retardation. The program needs a physical space in which to hold classes, trained staff, a reliable assessment tool which will not only assess, but act as a curriculum guide, curriculum based on sound teaching practice, age appropriate text for specific levels, defined levels i.e., by reading grade equivalent, criteria to move from one level to another, an appropriate student- teacher ratio, outside supports for each

learner, the accessibility of the classrooms in terms of location and cost (the DMR classes are all free), community support, and supports to higher education.

There is no one assessment tool by itself which is able to determine all the cognitive and literacy levels of an adult learner with mental retardation. A combination of the *DAR and the Brigance* would be most beneficial not only for assessment purposes, but for instructional purposes. Additional assessment information from psychological and neurological reports may be helpful in choosing a teaching strategy or in the assignment to a classroom or tutor. Not all assessments need to be formal and lengthy. The *Rosner-Tass* can be used as a quick check-up.

A combination of whole language and phonics instruction is the best way to teach most adults with mental retardation. Learners receiving a combination of both types of instruction made the most reading progress. Student-generated material is a very effective way for the students to learn. One student's written story has been instrumental in his quest to find a home outside the institution. His biography has helped to validate his search.

In addition to the importance of methodology used, the presence of any level of ancillary literacy intervention outside the DMR literacy classroom was the other factor in determining reading achievement. Further research might pinpoint exactly which level of intervention is the most effective.

Adults with mental retardation must follow the same sequence in the stages of reading development as specified by Chall (1983) as adult literacy learners in community adult education programs. These steps, also outlined by Chall (1993), are the same steps children follow in learning to read.

Data on the skills involved in gaining promotion would be helpful for learners in the workplace. This information might help literacy programs become more widespread with better supports when linked to employability potential for adults with mental retardation.

Although the *Wilson* (Phonics)*System* does not believe it advantageous to people with mental retardation, it had been found a useful text. The subject matter in the guided reading is more for adolescents, but it is not childish.

A literacy program operated by the Department of Mental Retardation differs from one run by a community school system. The coordinator has more personal information available about each student. This has been helpful in creating a safe and productive learning environment. Some might argue that a teacher should not have access to a student's psychological profile as a matter of confidentiality. In a referral process where there are many guardians involved, the question of who is accountable for an adult's safety within a classroom arises.

We need to work with communities to provide supports for adults with mental retardation and their families. We need to teach families with babies with mental retardation that these children can grow up to be literate adults and the sooner they start literacy instruction, the better chance the child will have to become an integral part of the community. We need to instruct communities and community-based adult education teachers. There needs to be a methodical process to bridge the DMR adult literacy program to community adult education. Adult learners need more supports at home and within the community. We know already that learners with literacy support at home achieve higher reading scores than those who receive no support. We need more teachers with the skills to teach literacy to adults with mental retardation. The number of referrals grew 65% in the last calendar year. The numbers of adults with mental retardation in Massachusetts requesting services is growing larger than one paid staff person working for the Department of Mental Retardation can effectively assess, teach, and monitor.

BIBLIOGRAPHY

Adams, M. (1990). *Beginning to Read.* Cambridge, MA: The MIT Press.

Armstrong, T. (1993) *Seven Kinds of Smart*, Penguin Books, USA

Beech, A, Beers, J. Dauzat, J, Dauzat, S. McCarthy, T. (1994). Steck-Vaughn: New York.

Brigance, A. (1977). *Brigance Diagnostic*. North Billerica, MA: Curriculum Associates, Inc.

Chall, J. (1983) *Stages of Reading Development*. New York: McGraw Hill, Table 5-1 pp.85-87.

Chall, J.,Roswell, G. (1992).Diagnostic Assessments of Reading (DAR). Chicago, IL: The Riverside Publishing Company.

Chall, J. & Roswell, F. (1994). *Creating Successful Readers*. Chicago, IL: The Riverside Publishing

Graham, C. (1987) *Jazz Chants*. New York: Oxford University Press.

Hamre-Nietupski, S. [et al.} Implementing a Community-Based Educational Model for Moderately/Severely Handicapped Students. TASH J, 1982, 7 (4), 38-43.

Harris Grades Word List and Informal Textbook Test, (1966). Curriculum Guide to Adult Basic Education, pp.220-229 United States Government Printing Office, Washington D.C.

Hartel, J., Hikes, J., Gedal, S., Gerould, K. (1986). *A Guide to ESL Literacy*. Cambridge, MA: Community Learning Center.

Ligon, F. Tannenbaum, E. (1990). *Picture Stories*.New York: Longman.

Langer, E. (1989). *Mindfulness*. Reading, MA: Addison-Wesley.

Lotspeich Greene, S. (1988). *Basic Literacy Kit, Sam and Val (An Adult Basal Reader)*. Cambridge, MA: Community Learning Center.

Moses, S. *Assessors Seek Test That Teaches*, The APA Monitor 21, no. 11 (November 1990) pp. 1-37.

National Center for Family Literacy. (1993). *Comparison of Whole Language and Traditional Approaches*. Louisville, Kentucky.

Raygor, A. *Raygor Readability Estimate.* Minnesota: University of Minnesota.

Rosner, J. (1975). Rosner-TASS. "Helping Children Overcome Learning Difficulties.: NY: Walker, p. 77-80.

SRA Industrial Test Staff. (1989). *SRA Reading Index*. Chicago, IL: Science Research Associates, Inc.

Wilson, B. (1996). *Wilson Reading System*. Millbury, MA: Wilson Language Training Corporation.